

What is claimed is:

1. A method of producing a lid material for a lid which is to be fuse-bonded to a peripheral upper surface of a case having an open top and a housing space for an electronic component, the method comprising the steps of:

press-bonding a foil of a nickel-based metal mainly comprising nickel onto a core sheet for formation of a nickel-based metal layer on a core layer;

diffusion-annealing the core layer and the nickel-based metal layer for diffusion-bonding the nickel-based metal layer onto the core layer; and

press-bonding a brazing material foil onto the nickel-based metal layer with a reduction ratio of 30 to 65% for formation of a brazing material layer on the nickel-based metal layer after the diffusion-annealing step.

2. A method as set forth in claim 1, wherein the core sheet is composed of an iron-nickel-based alloy mainly comprising iron and nickel in the nickel-based metal foil press-bonding step.

3. A method as set forth in claim 2, wherein the diffusion-annealing step is performed at an annealing temperature of not lower than 800°C for an annealing period of not shorter than two minutes.

4. A method as set forth in claim 2, wherein the diffusion-annealing step is performed at an annealing temperature of not lower than 900° C for an annealing period of not shorter than one minute.

5. A method as set forth in claim 3, wherein the brazing material foil is composed of a soft brazing material having a melting point of not higher than 450° C in the brazing material foil press-bonding step.

6. A method as set forth in claim 4, wherein the brazing material foil is composed of a soft brazing material having a melting point of not higher than 450° C in the brazing material foil press-bonding step.

7. A method as set forth in claim 5, wherein the soft brazing material is free from lead.

8. A method as set forth in claim 6, wherein the soft brazing material is free from lead.

9. A method as set forth in claim 1, wherein the brazing material foil is composed of a soft brazing material having a melting point of not higher than 450° C in the brazing material foil press-bonding step.

10. A method as set forth in claim 9, wherein the soft brazing material is free from lead.

11. A method as set forth in claim 2, wherein the brazing material foil is composed of a soft brazing material having a melting point of not higher than 450°

C in the brazing material foil press-bonding step.

12. A method as set forth in claim 11, wherein the soft brazing material is free from lead.

13. A lid material for a lid which is to be fuse-bonded to a peripheral upper surface of a case having an open top and a housing space for an electronic component, the lid material comprising:

a core layer:

a nickel-based metal layer press- and diffusion-bonded onto the core layer and composed of a nickel-based metal mainly comprising nickel; and

a brazing material layer press-bonded onto the nickel-based metal layer,

wherein the nickel-based metal layer has a maximum-to-minimum thickness ratio $T1/T2$ of 1.4 to 15.

14. A lid material as set forth in claim 13, wherein the core layer is composed of an iron-nickel-based alloy mainly comprising iron and nickel.

15. A lid material as set forth in claim 13, wherein the brazing material layer is composed of a soft brazing material having a melting point of not higher than 450° C.

16. A lid material as set forth in claim 14, wherein the brazing material layer is composed of a soft brazing material having a melting point of not higher than 450°

C.

17. A lid material as set forth in claim 15, wherein the soft brazing material is free from lead.

18. A lid material as set forth in claim 16, wherein the soft brazing material is free from lead.

19. An electronic component package comprising:
a case having an open top and a housing space for an electronic component; and

a lid provided on the top of the case,
the lid comprising a core layer, a nickel-based metal layer press- and diffusion-bonded onto the core layer and composed of a nickel-based metal mainly comprising nickel, and a brazing material layer press-bonded onto the nickel-based metal layer, the nickel-based metal layer having a maximum-to-minimum thickness ratio $T1/T2$ of 1.4 to 15,

wherein the brazing material layer of the lid is fuse-bonded to a peripheral upper surface of the case.

20. An electronic component package as set forth in claim 19, wherein the core layer is composed of an iron-nickel-based alloy mainly comprising iron and nickel.

21. An electronic component package as set forth in claim 19, wherein the brazing material layer is composed of a soft brazing material having a melting point of not

higher than 450° C.

22. An electronic component package as set forth in claim 20, wherein the brazing material layer is composed of a soft brazing material having a melting point of not higher than 450° C.

23. An electronic component package as set forth in claim 21, wherein the soft brazing material is free from lead.

24. An electronic component package as set forth in claim 22, wherein the soft brazing material is free from lead.